

Abstract

Background: Pastoralists in low-income countries usually live in close proximity to their animals and thus represent an important repository of information about livestock disease. Since wild and domestic animals often mix freely whilst grazing, pastoralists are also able to observe first-hand the diseases that are present in wildlife and as such are key informants in disease outbreaks in sylvatic animals. We report here the findings of the first study of the knowledge and role of Masai pastoralists in mange in wildlife and livestock in Masai Mara, Kenya.

Methodology/Principal Findings: In this paper we describe the knowledge of mange accrued by 56 Masai pastoralists in Kenya and how they respond to it in both wildlife and livestock. In total, 52 (93%) pastoralists had a clear idea of the clinical appearance of mange, 13 (23%) understood its aetiology and 37 (66%) knew that mites were the causal agent. Thirty-nine (69%) believed that mange cross-infection between domestic and wild animals occurs, while 48 (85%) had observed mange in domestic animals including sheep (77%), goats (57%), dogs (24%) and cattle (14%). The pastoralists had also observed wild animals infected with mange, above all lions (19%), gazelles (14%), cheetahs (12%) and wildebeests (2%). In 68% of cases Masai pastoralists treat mange infection or apply control measures, most commonly via the topical use of acaricides (29%) and/or the reporting of the outbreak to the veterinary authorities (21%). In the period 2007–2011, Kenya Wildlife Service received 24 warnings of 59 wild animals with mange-like lesions from the Masai Mara pastoralist community. The reported species were cheetah, lion, wild dog, Thomson's gazelle and wildebeest.

Conclusion: Masai pastoralists have good knowledge of mange epidemiology and treatment. Their observations and the treatments they apply are valuable in the control of this disease in both wild and domestic animals.